

Serial No. 10/053,773

Attorney Docket No.: 20496/363

REMARKS

Reconsideration of the above-identified patent application is respectfully requested.

Claims 9-17 are pending in the application. Of these, only claim 9 is independent.

In the final Office Action dated March 9, 2005, the Examiner rejected claims 9-10 under 35 U.S.C. 103(a) as being unpatentable over US 6,197,136 (Hishinuma, "US '136") in view of US 5,948,190 (Haug, "US '190"). The Examiner further rejected claims 11-17 under 35 U.S.C. 103(a) as being unpatentable over US '136 and US '190 as applied to claims 9-10, and further in view of US 5,616,199 (Jurrus, "US '199"). However, for the reasons set forth below, it is believed that the claims are not rendered unpatentable by any of the prior art of record.

According to claim 9, a method for setting a process for manufacturing a sealing seam includes the steps of measuring the temperature of the interface between the sealing partners during and after the heating step and "establishing said process based on said temperature." This means that the parameters of the machineS which manufacture the sealing seam are set based on the temperature measured during and after the heating step. For example, claim 10 specifies that the time-temperature-pressure progression of the machines manufacturing the sealing seam will be set based on this measured temperature.

US '136 discloses a method for setting the optimum temperature and pressure time during the manufacturing of sealing seams. This method is carried out by arranging a temperature-measuring element at the interface between the sealing partners for measuring the interface temperature. Based on the interface temperature measured over the time, the optimum

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temperature and the optimum pressure are determined, which are transferred during the sealing operation to the sealing partners.

In contrast to the present invention, the interface temperature in the method of US '136 is only measured during the heating operation of the interface between the sealing partners, while the temperature during the cooling operation is not relevant and not measured. Furthermore, the measured course of temperature is only used for setting the process parameters of the machines used for making the sealing seam until the end of the step of providing heat. The course of the temperature after the heating step is not used in the method of US '136 for setting process parameters. However, the part of the production process after the step of providing heat to the sealing partners is very important, since, for example, cups into which milk products are placed, are loaded are subjected to a tightness check immediately after being sealed. These operations have to be conducted as soon as possible after heat input (see description, paragraph [0007]).

Therefore, for optimizing the production process, it is very important

- to know about the interface temperature and the change of the temperature over the time after the step of providing heat to the sealing partners; and
- to set process parameters of the machines used for producing the sealing seam after the heat input.

US '190 discloses a method for welding together parts made of plastics, especially plastic pipes, wherein the joining pressure or the solidity (i.e., the consistency) is controlled during the cooling operation. The temperature during the cooling process is needed for controlling the cooling time so that the required solidity (consistency) of the material in the welding zone is

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assured. While there is some resemblance to the claimed process, nevertheless US '190 does not disclose or suggest the specific steps set forth in claim 9, and does not remedy the deficiencies of US '136.

First, US '190 does not relate to the technical field of production of sealing seams, especially not the technical field of food packaging material. US '190 relates only to the technical field of welding together plastic pipes. Furthermore, the method disclosed in US '190 is not a method for setting process parameters, but is a method for welding. The course of temperature over the time is, according to US '190, not used for setting process parameters of machines used for producing a sealing system after the step of providing heat to the sealing partners. Finally, in US '190, the interface temperature is not measured, but rather the temperature of a swelling or bulb at the outer surface of the parts welded together. Therefore, a person skilled in the art would not consider the disclosure of US '190 to be relevant to the claimed invention and therefore would not use it to solve the problem of the present invention. Nor would the skilled artisan be motivated to combine the teachings of US '190 with the teachings of US '136.

Accordingly, it is believed that claim 9 and the claims which depend from it are not rendered unpatentable by US '136 in view of US '190.

In view of the foregoing, it is believed that all claims in the application are now in condition for allowance and a favorable action on the merits is respectfully requested.

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